SPECIFICATION AMENDMENTS

(1) Replace the paragraph on page 1, lines 8-13 with the following paragraph in which the extra period from the last sentence of the originally submitted paragraph has been deleted.

A1

--The invention relates to respiratory systems such as Non-Invasive Positive Pressure Ventilation (NIPPV), nasal Continuous Positive Airway Pressure (CPAP) and other similar apparatus, used, for example, in the treatment of Sleep Disordered Breathing (SDB) or Obstructive Sleep Apnea (OSA). More particularly, this invention pertains to a respiratory apparatus which uses an automatic baseline tracking technique to monitor and display a patient's respiration, for example during a CPAP titration session of a sleep investigation.--

(2) Replace the paragraph on page 2, lines 6-23 with the following paragraph.

A2

--A convenient, established way of monitoring respiration during the diagnosis of a sleep disorder consists of analyzing pressure fluctuations obtained from nasal oxygen cannulae inserted into the patient's nares. This provides an indication of respiration flow. If upper-airway irregularities of a significant number are recorded, a CPAP titration session may be ordered. The goal of a CPAP titration session is to determine what level of CPAP treatment is needed to abolish the bulk of the patient's upper-airway irregularities. Throughout the session the CPAP level (pressure) is manually adjusted to resolve the irregularities. During such a session, respiration may be assessed by interpreting the mask pressure signal, a complex pressure signal consisting of the following components: (a) a CPAP component related to the positive airway pressure induced by the blower and having a very low frequency (in the order of 0-0.1 Hz) and high amplitude (in the order of 2-30 cm H_2O); (b) a respiration component related to the normal respiration of the patient and having a relatively low frequency (of about 0.01 Hz) and low amplitude, generally not exceeding 10 mm of H_2O; and possibly (c) a component associated with snoring and having a high frequency in the range of 30-200 Hz and a low amplitude in the order of a mm of H_2O . For diagnostic purposes, it is desirable to generate an output signal indicative of the last two components (b) and (c) to derive the respiration sequence referred to herein as the respiration signal.--

(3) Replace the paragraph beginning on page 7, line 18 and ending on page 8, line 4 with the following paragraph which corrects the absolute value symbols noted in the examiner's

objection.

A3

--If no significant deviation between the current signal Pb and CPAP is found in step 106, ~~(i.e., |Pl - Pb|<Pm)~~ (i.e., |Pl - Pb|≤Pm) then a second check is performed in step 112. Under certain conditions, the CPAP can change rapidly. This rapid change may be due, for example, to an abrupt leak in the mask 16, or because the blower 12 is activated and starts pumping air into the mask. The purpose of this second check is to insure that the baseline signal Pb tracks the CPAP during its short-term excursion. More specifically, in step 112 a test is performed to determine whether the absolute difference between the short term average pressure parameter Ps and the baseline pressure signal Pb has exceeded a threshold pressure Pi for a period of Ti. The period Ti is defined as the maximum time period for which a healthy adult can sustain a continuous inspiration or expiration. Typically Ti is about 6 seconds and Pi is about 3 cm H_2O. Alternatively, the threshold pressure Pi may also be set as a fraction of the dynamic range of the amplifier.--